

Appendix



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APPLICATION NO.	FILED DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/704,086	11/07/2003	Cary E. Glodt	12810-44107	3100
35973 7590 08/14/2006				
BINGHAM MCHALE LLP 2700 MARKET TOWER 10 WEST MARKET STREET INDIANAPOLIS, IN 46204-4900				
EXAMINER BEPFURLE, STEPHEN M				
ART UNIT 3753				
PAPER NUMBER				

DATE MAILED: 08/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/704.086

Applicant(s)

GLOODT, CARY E.

Examiner

Stephen M. Hepperle

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(s). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(g).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 8-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 8-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some c) ☐ None of.
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 and 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weingarten in view of applicant's disclosure of prior art (page 1, referencing a flexible hose for a hand-held shower and page 6, referencing a known Grohe valve). Weingarten shows a bathtub valve arrangement with a tub outlet 15 and shower outlet 35. Water to the shower is controlled independently from the tub outlet, and includes a thermostatic mixing valve to control maximum outlet temperature to the shower. Applicant discloses as old a single valve unit 104 that combines volume control, temperature control, and pressure balancing in a single unit (Grohe valve). It would have been obvious to replace the Weingarten valves 16, 17, 20 with the more compact known Grohe valve disclosed as old by applicant, to make a more compact assembly. All the claimed details of the valve itself (such as the "inner chamber" are seen as met by the admitted prior art. With respect to claim 11, it would have been obvious to mount the control valves in any convenient accessible position, including on the bathtub deck as is commonly known. It would have been obvious to use a flexible hose for the shower as is well known and admitted by applicant as old, in order make it more convenient to redirect water, shower children, and clean the shower. With respect to claim 8, it has been notoriously well known to put a valve on the shower head itself to control flow (to shut off an/or modify the spray for message, pulse, etc.), and so it would have been obvious to provide the Weingarten shower head

with such a valve for the same reason. The recited method of claims 9-12 is seen as accomplished by Weingarten as modified above.

Claims 1-5 and 8-13 are alternatively rejected under 35 U.S.C. 103(a) as being unpatentable over Weingarten in view of Humpert. Humpert shows a consolidated thermostatic and pressure balanced mixing valve (Fig. 1). Piston 70 provides pressure balancing, while thermostat 8 provides automatic temperature control and mixer 6 provides manual control. It would have been obvious to replace the Weingarten valves 16, 17, 20 with the Humpert valve to make a more compact assembly. With respect to claim 11, it would have been obvious to mount the control valves in any convenient accessible position, including on the bathtub deck as is commonly known. It would have been obvious to use a flexible hose for the shower as is well known and admitted by applicant as old, in order make it more convenient to redirect water, shower children, and clean the shower. With respect to claim 8, it has been notoriously well known to put a valve on the shower head itself to control flow (to shut off an/or modify the spray for message, pulse, etc.), and so it would have been obvious to provide the Weingarten shower head with such a valve for the same reason. The recited method of claims 9-12 is seen as accomplished by Weingarten as modified above.

Applicant's arguments filed 28 July 2006 have been fully considered but they are not persuasive. Applicant's arguments are directed to the details and capabilities of the "pressure balancing thermostatic mixing valve", which applicant discloses as old (either the Grohe 34-901-000 valve or Lawler TMM-1000 valve). It therefore follows logically that the details of the invention are met by known valves.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The two Everleigh patents were cited on the Lawler TMM-1000 data sheet. Note that Grohe is the assignee for Hupert cited above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Hepperle whose telephone number is 571-272-4913. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Keasel can be reached on 571-272-4929. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Stephen M. Hepperle
Primary Examiner
Art Unit 3753

Notice of References Cited

Application/Control No.

10/704,085

Applicant(s)/Patent Under
Reexamination
GLOODY, CARY E.

Examiner

Stephen M. Hepperle

Art Unit

3753

Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-4,349,149	09-1982	Humpert, Jurgen	236/12.1
*	B	US-6,042,015	03-2000	Eveleigh et al.	236/12.14
*	C	US-6,508,406	01-2003	Eveleigh et al.	236/12.14
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

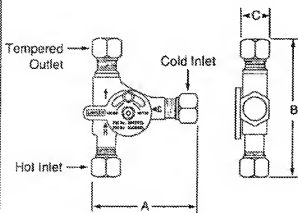
*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Data, Publisher, Edition or Volume, Pertinent Pages)
	U	"Mechanical Mixing Valve with Thermostatic Limit Stop Model TMM-1000" Data Sheet, Lawler Manufacturing Company, date uncertain.
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

ENG. NO. 86800-B
PAT. NO. 6,042,015.
PAT. NO. 6,508,406.



Mechanical Mixing Valve with Thermo-Static Limit Stop Model TMM - 1000

Unit No. 86800 ($\frac{3}{8}$ ")

Inlets & Outlet are $\frac{3}{8}$ " compression fittings

Checks included within inlets

ASSE 1016 Approved

The point of use mixing valve shall be a mechanical mixing valve with a high temperature limit stop with automatic reset. The mixing valve shall have compression fittings and a means to adjust outlet temperature. Valve construction will include a bronze body and integral back flow checks. The mixing valve shall be Lawler model TMM-1000.

Specifications

- Hot water supply temperature: 140°F max.
- Water supply pressure (static): 125 psi max.
- Flow rate @ 45 psi: 2.1 gal/minute min.
- Shut off temperature: 118°F \pm 3°F.
- Min. operating pressure: 5 psi.
- Integral rubber duck-bill back-flow checks.
- Pressure must be equal between supplies.

Benefits

- Automatically shuts down flow of water when temperature reaches 120°F.
- Protects against scalding and chilling.
- Offers choice of temperature settings from full cold through 115°F.
- Easy installation.
- Backed by Lawler's One Year Warranty.

Engineer Approval ☐

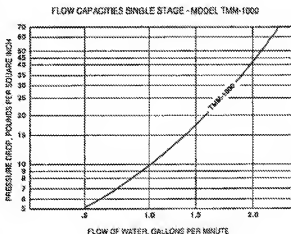


MANUFACTURING CO., INC.

5330 East 25th Street
Indianapolis, Indiana 46218
Phone (317) 261-1212
Fax (317) 261-1208

DIMENSIONS:

Valve Number	A	B	C
TMM-1000	2 1/4"	3 3/8"	1 1/2"



CAPACITIES - MODEL TMM-1000

Pressure Drop PSI	5	10	20	40
Valve Number	Capacity			
TMM-1000-GPM	.5	1	1.6	1.9
TMM-1000-LFM	1.8	3.7	6	7

Temperature Adjustment

The temperature adjusting dial is located on the cold inlet. Turning the dial clockwise will lower the outlet temperature, turning the dial counter-clockwise will raise it. The valve cannot be adjusted above its shut-off temperature of 120°F.

Note: For ASSE 1016 applications.

Specification subject to change without notice.

Certificate of Electronic Filing (37 C.F.R. § 1.8)

I hereby certify that this correspondence is being filed
Electronically via EFS-Web on February 13, 2007.

/Amy A. Rollins/

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.	:	10/704,086	Confirmation No.	3100
Applicant	:	Cary E. Gloodt		
Filed	:	November 7, 2003		
TC/A.U.	:	3753		
Examiner	:	Stephen M. Hepperle		
Docket No.	:	13226/631		
Customer No.	:	43218		

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE TO OFFICE ACTION

Sir:

In response to the Office Action dated August 14, 2006, please amend the above-identified application as follows:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 7 of this paper.

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A bathtub plumbing system having an anti-scald hand-held shower system connected without the need of a diverter, the bathtub plumbing system comprising:

a primary hot water supply pipe;

a primary cold water supply pipe;

a hot water control valve coupled to the hot water supply pipe;

a cold water control valve coupled to the cold water supply pipe;

a bathtub faucet coupled to hot and cold water supply pipes downstream of the hot and cold water control valves;

a hand held shower head; and

a pressure balancing thermostatic mixing valve coupled to the primary hot and cold water supply pipes at a location upstream of the hot and cold water control valves, system for receiving and mixing water from respective hot and cold water sources and the thermostatic mixing valve fluidically connecting ed to the hand held shower head to the primary hot and cold water supply pipes;

wherein the pressure balancing thermostatic mixing valve ~~system~~ is adjustable to control the pressure and temperature of water flowing to the hand

held shower head independent of and exclusive of the hot and cold water control valves therefrom; and

wherein the hand held shower head outputs water of a predetermined maximum temperature.

2. (Original) The plumbing system of claim 1 wherein the thermostatic mixing valve further comprises an inner chamber adapted to intermix hot and cold water, wherein the thermostatic mixing valve is adapted to supply water to the hand held shower, and wherein the thermostatic mixing valve is adapted to reduce pressure fluctuations of the water supplied to the hand held shower.

3. (Original) The plumbing system of claim 1 wherein the thermostatic mixing valve is adapted to supply water to the hand held shower and wherein the thermostatic mixing valve is adapted to balance the temperature of the water supplied to the hand held shower.

4. (Original) The plumbing system of claim 1 wherein the thermostatic mixing valve further comprises an inner chamber adapted to intermix hot and cold water, wherein the thermostatic mixing valve is adapted to supply water to the hand held shower, wherein the thermostatic mixing valve is adapted to balance the temperature of the water supplied to the hand held shower, and wherein the thermostatic mixing valve is adapted to balance the pressure of the water supplied to the hand held shower.

5. (Currently Amended) A bathub plumbing system having primary hot and cold water pipes, hot and cold water control valves coupled to hot and cold water and a bathtub mounted faucet coupled to the primary hot and cold water pipes downstream of the hot and cold water control valves, and a bathtub-mounted hand-held shower system controlled by an anti-

~~scald mixing valve system connected in hydraulic communication with respective hot and cold water sources without the need of a diverter~~ the bathtub plumbing system comprising:

an anti-scald mixing valve system adapted for coupling with and receiving water from the primary hot and cold water pipes at a position upstream from the hot and cold water control valves, defining a mixing chamber hydraulically connected to a hot water inlet, a cold water inlet and an outlet;

a hand held shower head in fluid communication with the valve system, the hand held shower head receiving a flow of water from the hot and cold water pipes via the valve system such that the flow of water to the hand held shower head is not affected by the hot and cold water control valves; and

a flexible hose connecting the hand held shower head in hydraulic communication with the anti-scald mixing valve outlet;

wherein the anti-scald mixing valve system has a thermostatic portion for defining a maximum water output temperature and a pressure control portion for defining a maximum water output pressure and reducing water output pressure, fluctuations; and

wherein the hand held shower head includes a flow control actuator, the flow control actuator controlling may be actuated to actuate a flow of water from the hand held shower of characterized by a substantially predetermined maximum temperature and pressure.

6. (Cancelled)

7. (Cancelled)

8. (Original) The system of claim 5 wherein the handheld mixing shower

head includes an actuation valve.

9. (Currently Amended) A method for controlling the water temperature and pressure output from a hand held shower head, comprising the steps of:

- a) connecting a pressure balancing thermostatic mixing valve having an output and a plurality of inputs to a hot water source and to a cold water source upstream of hot and cold water bathtub faucet control valves;
- b) hydraulically connecting the pressure balancing thermostatic mixing valve output to the hand held shower head;
- c) controlledly opening the thermostatic mixing valve to achieve a water output from the hand held shower head characterized by a predetermined temperature; and
- d) substantially reducing pressure fluctuations in the water output from the hand held shower head.

10. (Original) The method of claim 9 wherein the thermostatic mixing valve is adapted to supply water to the hand held shower head, wherein the water has a predetermined maximum water temperature, and wherein the predetermined maximum water temperature is controlled by the thermostatic mixing valve.

11. (Previously presented) The bathtub plumbing system of claim 1 wherein the pressure balancing thermostatic mixing valve system is affixed to a bathtub deck.

12. (Previously presented) The of claim 9 wherein the pressure balancing thermostatic mixing valve defines a maximum pressure for the output of the hand held shower head.

13. (Currently Amended) A method for preventing accidental scalding while using a hand held shower system for a bathtub, comprising:

connecting an anti-scald thermostatic valve system in hydraulic communication with respective hot and cold water sources;

connecting in hydraulic communication a hand held shower head and the thermostatic valve;

actuating a flow of water through the anti-scald thermostatic valve system and the hand held shower head independent of and exclusive of bathtub hot and cold water control valves, wherein the flow of water is characterized by a predetermined maximum temperature and pressure; and

balancing the temperature and pressure of the flow of water with the anti-scald thermostatic valve system.

REMARKS/ARGUMENTS

1. Amendments to the Claims.

Claims 1-5 and 8-13 remain in this application. Claims 6 and 7 have been cancelled. Claims 1, 5, 9 and 13 have been amended, support for which may be found throughout the specification and drawings, particularly, in FIGS. 2-3, and paragraph 3 on page 6 and paragraph 1 on page 8 of the specification. No new matter has been added.

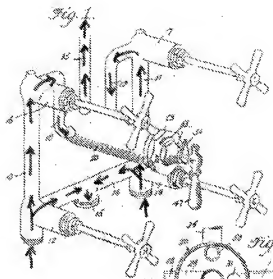
2. Rejections to the Claims Under 35 U.S.C. §103.

Claims 1-5 and 8-13 were rejected under 35 U.S.C. §103 as being unpatentable over U.S. Patent No. 2,296,128 to Weingarten in view of Applicant's disclosure of Grohe valves and faucet technology. As amended, claim 1 calls for a handheld, anti-scald shower system having, among other things, primary hot and cold water supply pipes, hot and cold water control valves coupled to respective hot and cold water supply pipes, a bathtub faucet coupled to hot and cold water pipes downstream of the hot and cold water control valves, a thermostatic mixing valve system coupled to hot and cold water supply pipes at a location upstream of the hot and cold water control valves and a handheld shower head coupled to hot and cold water supply pipes via the thermostatic mixing valve system. By way of the mixing valve's upstream connection to the primary hot and cold water supply pipes, the mixing valve controls the flow of water to the handheld shower head independent of and exclusive of the hot and cold water control valves.

To the contrary, Weingarten '128 discloses a thermostatically controlled mixing valve that is coupled to primary hot and cold water supply pipes downstream of a pair each of hot and cold water control valves. As illustrated in FIG. 1 of Weingarten '128, which is reproduced

below and has been annotated to facilitate this discussion, hot and cold water pipes 10, 11 receive water from hot and cold waters supplies at their lower ends. See Weingarten '128, Col. 1, line 55-Col. 2, line 2. Hot and cold water pipes 10, 11 are equipped with two pair of water control valves. Lower water control valves 12, 13 control the supply of hot and cold water to transverse mixing pipe 14 and upper water control valves 16, 17. Upper water control valves 16, 17 (as well as lower water control valves 12, 13) control the hot and cold water supply to feed pipes 18, 19, which feed into temperature regulating device 20. Fig. 5 of Weingarten '128 also illustrates a mixing valve 66 coupled to water supply pipes 60, 61 downstream of manually actuated valves 62, 63, which control the supply of hot and cold water to the mixing valve 66. Accordingly, Weingarten '128 fails to disclose, teach or suggest a thermostatic mixing valve system coupled to hot and cold water supply pipes at a location upstream of the hot and cold water control valves.

Furthermore, contrary to claim 1, because the mixing valve system of Weingarten '128 is connected to the primary hot and cold water supply pipes downstream of hot and cold water control valves 16, 17 and 12, 13, the mixing valve 20 of Weingarten '128 is incapable of controlling the flow of water to the hand held shower head independent of and exclusive of the hot and cold water control valves.



The Grohe valves illustrated in Applicant's disclosure also fail to disclose, teach or suggest a thermostatic mixing valve system coupled to hot and cold water supply pipes at a location upstream of the hot and cold water control valves such that the valve system controls the flow of water to the hand held shower head independent of and exclusive of the hot and cold water control valves. Accordingly, no combination of Weingarten '128 and Grohe would yield the invention of claim 1. For this reason, claim 1 is patentable over Weingarten '128 and Grohe. Furthermore, claims 2-4, by way of dependency on claim 1, also include all the limitations of claim 1 and, therefore, are also patentable over Weingarten '128 and Grohe.

Similarly, claim 5, as amended, calls for a bathtub plumbing system including, among other things, an anti-scald mixing valve system adapted for coupling with and receiving water from primary hot and cold water pipes at a position upstream from the hot and cold water control valves and a hand held shower head in fluid communication with the valve system. By way of the mixing valve's upstream connection to the primary hot and cold water supply pipes, the hand

held shower head receives a flow of water from the hot and cold water pipes via the valve system such that the flow of water to the hand held shower head is not affected by the hot and cold water control valves. As discussed above, no combination of Weingarten '128 and Grohe discloses, teaches or suggests a thermostatic mixing valve system coupled to hot and cold water supply pipes at a location upstream of the hot and cold water control valves, such that the flow of water to the hand held shower head is not affected by the hot and cold water control valves. For this reason, claim 5 and claim 8, by way of dependency on claim 5, are also patentable over Weingarten '128 and Grohe.

Claim 9 calls for a method for controlling the water output to the hand held shower head by taking the steps, among others, of connecting a thermostatic mixing valve to hot and cold water sources upstream of hot and cold water bathtub faucet controls. As discussed above, no combination of Weingarten '128 and Grohe discloses, teaches or suggests a thermostatic mixing valve system coupled to hot and cold water supply pipes at a location upstream of the hot and cold water control valves. For this reason, claim 9 and claims 10-12, by way of dependency on claim 9, are also patentable over Weingarten '128 and Grohe.

Claim 13 calls for a method for preventing accidental scalding while using a hand held shower system for a bathtub by taking the steps, among others, of actuating a flow of water through an anti-scald thermostatic valve system and the handheld shower head independent of and exclusive of bathtub hot and cold water control valves. As discussed above, no combination of Weingarten '128 and Grohe discloses, teaches or suggests a thermostatic mixing valve system that actuates a flow of water through an anti-scald thermostatic valve system and the handheld

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Amdt. dated February 14, 2007
Reply to Office Action of August 14, 2006

shower head independent of and exclusive of bathtub hot and cold water control valves. For this reason, claim 13 is also patentable over Weingarten '128 and Grohe.

CONCLUSION

For the reasons discussed above, Applicant contends that claims 1-5 and 8-13 are patentable over the cited references and, therefore, respectfully requests that action toward a Notice of Allowance be taken.

Applicant hereby requests a three month extension of time and submits the applicable fee herewith. Applicant believes that no additional fees are due in connection with this submission, however, if any fees are necessary, please charge Deposit Account No. 50-1438, Sommer Barnard PC.

Respectfully submitted,

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